



Quanterra Incorporated  
13715 Rider Trail North  
Earth City, Missouri 63045

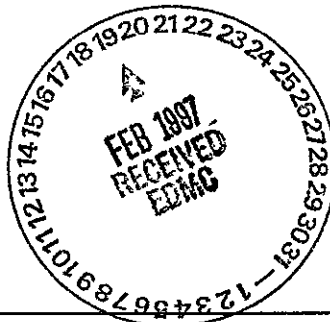
314 298-8566 Telephone  
314 298-8757 Fax

## CERTIFICATE OF ANALYSIS

Bechtel Hanford Incorporated  
3350 George Washington Way  
Richland, Washington 99352

September 3, 1996

Attention: Joan Kessner




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Project number	:	550.165
Date Received by Lab	:	August 19, 1996
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	W01125
Data Deliverable	:	Summary

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### I. Introduction

On August 19, 1996, two (2) soil samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. Upon receipt, the samples were given the following laboratory ID numbers to correspond with the specific client ID's:

<u>St. Louis ID</u>	<u>WHC ID</u>	<u>Richland ID</u>	<u>Matrix</u>	<u>Date of Receipt</u>
11872-001	BOJ068	60824601	Soil	08/19/96
11872-002	BOJ069	60824602	Soil	08/19/96

### II. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICAP metals by EPA 6010 and Mercury by EPA 7470 following TCLP extraction by EPA method 1311.

SEP 24 1996

Bechtel Hanford Incorporated  
September 3, 1996  
Project Number: 550.165  
SDG: W01125  
Page 2

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### III. Quality Control

A Laboratory Control Sample and Method Blank were analyzed with each preparation batch. Matrix Spike and Matrix Spike Duplicate analyses were performed per the protocol for each analyte.

### IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank

QCLCS- Quality Control Laboratory Control Sample, Blank Spike

### V. Comments

#### Shipping and Receiving

There are no comments or nonconformances associated with the shipping and receiving of these samples.

#### Metals

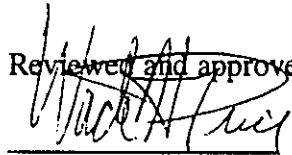
There weren no comments or nonconformances associated with these analyses.

Bechtel Hanford Incorporated  
September 3, 1996  
Project Number: 550.165  
SDG: W01125  
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I certify that this certificate of analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:



Wade H. Price  
Project Manager  
e:\price\abbydave\hanw1125.coa



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96

Client ID: B0J068

Quanterra ID : 11872-001

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	0.00010	MG/L	U	0.00020	0.20	1



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: B0J068

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96

Quanterra ID : 11872-001MS

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	92	%REC				1



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J068

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96

Quanterra ID : 11872-001MSD

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	91	%REC				1



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J069

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 09/03/96

Quanterra ID : 11872-002

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	0.00010	MG/L	U	0.00020	0.20	1

Quanterra August 28, 1996 09:41 am  
Account: 10722 Project: 550.165 Quanterra-Richland QAS No. 550.165 Rev. 0  
Master Sample Login: 11872

Project Manager: W. Price

Draft: Final:

Entered and Reviewed by: S. Janner

PM Review: [Signature]

Sample Header Template:

Sample No. Comments # Container Type Data:	Client ID	C-Matrix Analysis	Date: Collected Class Preservative	Received Anal. Due Date	Due Hold Date	Shipper Site	Rad Category (Container Numbers: % Filled)	Rad Sample No.
11872-001 RICHLAND I.D. 60824601	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
1 AN - Amber Glass-500ml 1		EXTMETAL/TCLP/Q4 HG/TCLP/Q4	S COLD S COLD	30-AUG-96 30-AUG-96	13-SEP-96 T6C 13-SEP-96 T6C		(243816:100) (243816:100)	
11872-001MS RICHLAND I.D. 60824601	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
1 AN - Amber Glass-500ml 1		EXTMETAL/TCLP/Q4 HG/TCLP/Q4	S COLD S COLD	30-AUG-96 30-AUG-96	13-SEP-96 T6C 13-SEP-96 T6C		(243816:100) (243816:100)	
11872-001MSD RICHLAND I.D. 60824601	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
1 AN - Amber Glass-500ml 1		EXTMETAL/TCLP/Q4 HG/TCLP/Q4	S COLD S COLD	30-AUG-96 30-AUG-96	13-SEP-96 T6C 13-SEP-96 T6C		(243816:100) (243816:100)	
11872-002 RICHLAND I.D. 60824602	B0J069	Soil	16-AUG-96 10:20	19-AUG-96 10:10	02-SEP-96	FED-EX	2	Screening not Required
1 AN - Amber Glass-500ml 1		EXTMETAL/TCLP/Q4 HG/TCLP/Q4	S COLD S COLD	30-AUG-96 30-AUG-96	13-SEP-96 T6C 13-SEP-96 T6C		(243817:100) (243817:100)	

3\*-Sample has not been rad screened.





Bachtel Hanford, Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						Page <u>1</u> of <u>1</u>		
Collector <u>R. Fehlgang</u>		Company Contact <u>Scott Peterson</u>				Telephone <u>372 9574</u>		Date Turnaround <input type="checkbox"/> Priority <input checked="" type="checkbox"/> Normal <u>15 day quick</u>		
Project Designation <u>100-D Pond</u>		Sampling Location <u>100 D Pond</u>				SAF No. <u>1396-177</u>				
Ice Chest No. <u>NA BW SML-519</u>		Field Logbook No. <u>EL-1309</u>				Method of Shipment <u>Hand Delivered</u>				
Shipped To <u>Quinterra</u>		Offsite Property No. <u>NA</u>				Bill of Lading/Air Bill No. <u>NA</u>				
Possible Sample Hazards/Remarks		Preservation	<u>None</u>							
		Type of Container	<u>2G</u>							
		No. of Container(s)	<u>1</u>							
Special Handling and/or Storage		Volume	<u>500mL</u>							
SAMPLE ANALYSIS <u>608246</u>		<u>SDU</u> <u>W01125</u>		<u>R/LP</u>	<u>Mercury</u>					
Sample No.	Matrix*	Date Sampled	Time Sampled							
<u>01 BOT068</u>	<u>S</u>	<u>8-16-96</u>	<u>1018</u>	<u>X</u>						
<u>02 BOT069</u>	<u>S</u>	<u>8-16-96</u>	<u>1020</u>	<u>X</u>						
				<u>100%</u>						
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WH = Waste L = Liquid V = Vegetation X = Other	
Relinquished By <u>R. Fehlgang</u> Date/Time <u>1300 8-16-96</u>		Received By <u>Scott Peterson</u> Date/Time <u>1300 8-16-96</u>								
Relinquished By <u>Scott Peterson</u> Date/Time <u>1010 8-19-96</u>		Received By <u>Quinterra</u> Date/Time <u>1010 8-19-96</u>								
Relinquished By <u>Scott Peterson</u> Date/Time <u>1010 8-19-96</u>		Received By <u>Quinterra</u> Date/Time <u>1010 8-19-96</u>								
Relinquished By <u>Scott Peterson</u> Date/Time <u>1010 8-19-96</u>		Received By <u>Quinterra</u> Date/Time <u>1010 8-19-96</u>								
LABORATORY SECTION		Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time				

## VALIDATED RESULTS SHORT REPORT

19 Aug 1996

Customer ID: BOJ068  
Lab Sample#: S96E001016

Sample Date: 08/16/96 00:00  
Recv. Date: 08/16/96 12:40

PARAMETER	RESULTS	UNITS
Total Activity by LSC	10.2	%Uncertainty
Total Act. by LSC: % Uncert.	< 7.45e-6	uCi/g
Total Activity by LSC (Solid)		

Customer ID: BOJ069  
Lab Sample#: S96E001017

Sample Date: 08/16/96 00:00  
Recv. Date: 08/16/96 12:40

PARAMETER	RESULTS	UNITS
Total Activity by LSC	10.6	%Uncertainty
Total Act. by LSC: % Uncert.	< 7.74e-6	uCi/g
Total Activity by LSC (Solid)		

# SAMPLE RECEIPT VARIANCE REPORT

WORK ORDER NUMBER: \_\_\_\_\_ DATE INITIATED: 8-19-96  
1010

INITIATED BY: Karin Schuler

DATE/TIME OF SAMPLE (AND/OR RFA & COC) RECEIPT: \_\_\_\_\_

CLIENT SAMPLE NUMBER	RFA/COC NUMBERS	ANALYSIS REQUESTED
<u>B0T068</u>		
<u>B0T069</u>		

Samples were received with the following deficiencies:

- ☐ 1. Not enough sample received for proper analysis.
- ☐ 2. Sample received without proper preservative.
- ☐ 3. No sample received in container.
- ☐ 4. Sample received without a RFA/COC form.
- ☐ 5. No sample ID on container.
- ☐ 6. Sample received broken or leaking.
- ☐ 7. Holding time exceeded at receipt.
- ☐ 8. Custody tape broken.
- ☐ 9. COC not relinquished by client.
- ☐ 10. Sample information on container does not match sample information on the paper work (Explain below).
- ☐ 11. All shipping containers (coolers) on waybill not received with shipment.
  - ☐ RFA/COC received
  - ☐ RFA/COC not received
- ☒ 12. Other (Explain below).

NOTES: no screen vial - took out of Mercury

SUPERVISOR REVIEW: \_\_\_\_\_

PROJECT MANAGER REVIEW: \_\_\_\_\_

TELEPHONED TO: \_\_\_\_\_ ON \_\_\_\_\_ BY \_\_\_\_\_

TELEFAXED TO: \_\_\_\_\_ ON \_\_\_\_\_ BY \_\_\_\_\_

SIGNED ORIGINAL MUST BE RETAINED IN WORK ORDER FILE

FORM NO. LS-023, 3/92, Rev. 0

Figure 1

## SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 8-19-96 1010 Client Name BHZ  
Project/Client # B96-177 Batch or Case # \_\_\_\_\_  
Cooler ID (if noted on outside of cooler) SML-519

1. Condition of shipping container? O.K.
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☐ No ☒
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 27
8. Samples have: ☒ tape ☐ hazard labels  
☒ custody seals ☐ appropriate sample labels
9. Samples are: ☒ in good condition ☐ leaking  
☐ broken ☐ have air bubbles  
☐ other
10. Coolant Present? Yes ☒ No ☐ Sample Temperature 4°C
11. The following paperwork should be accounted for (N/A if not applicable):  
Chain of Custody #(s) N/A  
Request for Analysis #(s) 1  
Airbill # 1761 Carrier 1761
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☒

Printed Name/Signature Laura J. Hurling Date/Time 8-19-96  
1010



Environmental  
Services

BWJ RB  
8-20-96  
13:00  
Br 2m

Login No.: 11872

Condition Upon Receipt Variance Report  
St. Louis Laboratory

Client: Richland  
Project No: 550.165  
Shipper/No: Fed EX 218-5975 346

Date: 8-20-96 Time: 09:15  
Initiated by: 2nd Mitchell  
RFA/COC Numbers: 54485

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Record temperature: _____ <input type="checkbox"/> pH _____ <input type="checkbox"/> other: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
3. <input type="checkbox"/> Sample received in improper container.	10. <input type="checkbox"/> Other (explain below): _____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

☐ No variances were noted during sample receipt.

Cooler Temperature Upon Receipt: 2°C

Notes:

Corrective Action:

- ☐ Client's Name: \_\_\_\_\_ Informed verbally on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Client's Name: \_\_\_\_\_ Informed in writing on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Sample(s) processed "as is".
- ☐ Sample(s) on hold until: \_\_\_\_\_ If released, notify: \_\_\_\_\_

Sample Control Supervisor Review: (signature) 2nd Mitchell Date: 8-20-96

Project Management Review: (signature) Date: 8-23-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

## CERTIFICATE OF ANALYSIS

Bechtel Hanford Incorporated  
3350 George Washington Way  
Richland, Washington 99352

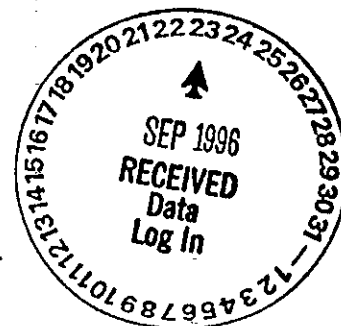
September 7, 1996

Attention: Joan Kessner

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Project number	:	550.165
Date Received by Lab	:	August 19, 1996
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	W01125
Data Deliverable	:	Summary

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### I. Introduction

On August 19, 1996, two (2) soil samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. Upon receipt, the samples were given the following laboratory ID numbers to correspond with the specific client ID's:

<u>St. Louis ID</u>	<u>WHC ID</u>	<u>Richland ID</u>	<u>Matrix</u>	<u>Date of Receipt</u>
11872-001	BOJ068	60824601	Soil	08/19/96
11872-002	BOJ069	60824602	Soil	08/19/96

### II. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICAP metals by EPA 6010 and Mercury by EPA 7470 following TCLP extraction by EPA method 1311.

00002

Bechtel Hanford Incorporated  
September 7, 1996  
Project Number: 550.165  
SDG: W01125  
Page 2

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### III. Quality Control

A Laboratory Control Sample and Method Blank were analyzed with each preparation batch. Matrix Spike and Matrix Spike Duplicate analyses were performed per the protocol for each analyte.

### IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank

QCLCS- Quality Control Laboratory Control Sample, Blank Spike

### V. Comments

#### Shipping and Receiving

There are no comments or nonconformances associated with the shipping and receiving of these samples.

#### Metals

There weren no comments or nonconformances associated with these analyses.

00003

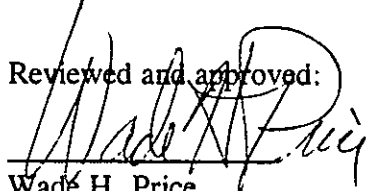


Bechtel Hanford Incorporated  
September 7, 1996  
Project Number: 550.165  
SDG: W01125  
Page 3

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I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:



Wade H. Price  
Project Manager

c:\price\$labbydave\hanw1125.nar

00004

Project Manager: W. Price

Draft: Final:

Entered and Reviewed by: S. Janner

PM Review: [Signature]

Sample Header Template:

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
Comments								
# Container Type		Analysis	Class	Preservative	Anal. Due Date	Hold Date Site		(Container Numbers: % Filled)
11872-001	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
RICHLAND I.D. 60824601								
1 AN - Amber Glass-500ml		EXTMETAL/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
1		HG/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
11872-001MS	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
RICHLAND I.D. 60824601								
1 AN - Amber Glass-500ml		EXTMETAL/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
1		HG/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
11872-001MSD	B0J068	Soil	16-AUG-96 10:18	19-AUG-96 10:10	02-SEP-96	FED-EX	1	Screening not Required
RICHLAND I.D. 60824601								
1 AN - Amber Glass-500ml		EXTMETAL/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
1		HG/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243816:100)
11872-002	B0J069	Soil	16-AUG-96 10:20	19-AUG-96 10:10	02-SEP-96	FED-EX	2	Screening not Required
RICHLAND I.D. 60824602								
1 AN - Amber Glass-500ml		EXTMETAL/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243817:100)
1		HG/TCLP/Q4	S	COLD	30-AUG-96	13-SEP-96 T6C		(243817:100)

3\*\*Sample has not been rad screened.

50005



Bechtel Hanford, Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						Page <u>1</u> of <u>1</u>	
Collector <u>R. F. H. K. S.</u>		Company Contact <u>Scott Peterson</u>			Telephone <u>372 9574</u>			Date Turnaround <input type="checkbox"/> Priority <input checked="" type="checkbox"/> Normal <u>15 days</u>	
Project Designation <u>100-D Ponds</u>		Sampling Location <u>100 D Pond</u>			SAF No. <u>1396-177</u>				
Ice Chest No. <u>NA 36 SML-519</u>		Field Logbook No. <u>EL-1709</u>			Method of Shipment <u>Hand Delivered</u>				
Shipped To <u>Quaterna</u>		Offsite Property No. <u>NA</u>			Bill of Lading/Air Bill No. <u>NA</u>				
Possible Sample Hazards/Remarks		Preservation		<u>None</u>					
		Type of Container		<u>2G</u>					
		No. of Container(s)		<u>1</u>					
Special Handling and/or Storage		Volume		<u>500mL</u>					
SAMPLE ANALYSIS <u>608246</u> <u>SDU</u> <u>W01125</u>				TCLP Mercury					
Sample No.	Matrix*	Date Sampled	Time Sampled						
<u>01 B07068</u>	<u>S</u>	<u>8-16-96</u>	<u>1018</u>	<u>X</u>					
<u>02 B07069</u>	<u>S</u>	<u>8-16-96</u>	<u>1020</u>	<u>X</u>					
				<u>100%</u>					
CHAIN OF POSSESSION		Sign/Print Names			SPECIAL INSTRUCTIONS				Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By <u>R. F. H. K. S.</u> Date/Time <u>1300 8-16-96</u>		Received By <u>Eric</u> Date/Time <u>1300 8-16-96</u>							
Relinquished By <u>Eric</u> Date/Time <u>1010 8-19-96</u>		Received By <u>Quaterna</u> Date/Time <u>1010 8-19-96</u>							
Relinquished By <u>Eric</u> Date/Time <u>1010 8-19-96</u>		Received By <u>Quaterna</u> Date/Time <u>1010 8-19-96</u>							
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____							
LABORATORY SECTION	Received By _____		Title _____		Date/Time _____				
FINAL SAMPLE DISPOSITION	Disposal Method _____		Disposed By _____		Date/Time _____				

00007

## VALIDATED RESULTS SHORT REPORT

19 Aug 1996

Customer ID: BOJ068  
Lab Sample#: S96E001016

Sample Date: 08/16/96 00:00  
Recv. Date: 08/16/96 12:40

PARAMETER	RESULTS	UNITS
Total Activity by LSC		
Total Act. by LSC: % Uncert.	10.2	%Uncertainty
Total Activity by LSC (Solid)	< 7.45e-6	uCi/g

Customer ID: BOJ069  
Lab Sample#: S96E001017

Sample Date: 08/16/96 00:00  
Recv. Date: 08/16/96 12:40

PARAMETER	RESULTS	UNITS
Total Activity by LSC		
Total Act. by LSC: % Uncert.	10.6	%Uncertainty
Total Activity by LSC (Solid)	< 7.74e-6	uCi/g

# SAMPLE RECEIPT VARIANCE REPORT

WORK ORDER NUMBER: \_\_\_\_\_ DATE INITIATED: 8-19-96

INITIATED BY: Karin Schenkberg

DATE/TIME OF SAMPLE (AND/OR RFA & COC) RECEIPT: \_\_\_\_\_

CLIENT SAMPLE NUMBER	RFA/COC NUMBERS	ANALYSIS REQUESTED
<u>B0J068</u>		
<u>B0J069</u>		

Samples were received with the following deficiencies:

- |   |   |
|---|---|
| <input type="checkbox"/> 1. Not enough sample received for proper analysis. | <input type="checkbox"/> 7. Holding time exceeded at receipt.   |
| <input type="checkbox"/> 2. Sample received without proper preservative.    | <input type="checkbox"/> 8. Custody tape broken.  |
| <input type="checkbox"/> 3. No sample received in container.                | <input type="checkbox"/> 9. COC not relinquished by client.   |
| <input type="checkbox"/> 4. Sample received without a RFA/COC form.         | <input type="checkbox"/> 10. Sample information on container does not match sample information on the paper work (Explain below). |
| <input type="checkbox"/> 5. No sample ID on container.                      | <input type="checkbox"/> 11. All shipping containers (coolers) on waybill not received with shipment.                             |
|   | <input type="checkbox"/> RFA/COC received   |
|   | <input type="checkbox"/> RFA/COC not received   |
| <input type="checkbox"/> 6. Sample received broken or leaking.              | <input checked="" type="checkbox"/> 12. Other (Explain below).  |

NOTES: no sample vial - took out of Murrey

SUPERVISOR REVIEW: \_\_\_\_\_

PROJECT MANAGER REVIEW: \_\_\_\_\_

TELEPHONED TO: \_\_\_\_\_ ON \_\_\_\_\_ BY \_\_\_\_\_

TELEFAXED TO: \_\_\_\_\_ ON \_\_\_\_\_ BY \_\_\_\_\_

SIGNED ORIGINAL MUST BE RETAINED IN WORK ORDER FILE

FORM NO. LS-023, 3/92, Rev. 0

00009

Figure 1

## SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 8-19-96 1010 Client Name BHI  
Project/Client # B96-177 Batch or Case # \_\_\_\_\_  
Cooler ID (if noted on outside of cooler) SML-519

1. Condition of shipping container? O.K.
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☐ No ☒
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 27
8. Samples have: ☒ tape ☐ hazard labels  
☒ custody seals ☐ appropriate sample labels
9. Samples are: ☒ in good condition ☐ leaking  
☐ broken ☐ have air bubbles  
☐ other
10. Coolant Present? Yes ☒ No ☐ Sample Temperature 4°C
11. The following paperwork should be accounted for (N/A if not applicable):  
Chain of Custody #(s) N/A  
Request for Analysis #(s) 1  
Airbill # 1761 Carrier 1761
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☒

Printed Name/Signature Laura Schindler Date/Time 8-19-96 1010



8-20-96  
1300  
By: zm

Login No.: 11872

Condition Upon Receipt Variance Report  
St. Louis Laboratory

Client: Richland  
Project No: 550.165  
Shipper/No: Fed Ex 218-5975 346

Date: 8-20-96 Time: 09:15  
Initiated by: 2nd Mitchell  
RFA/COC Numbers: 54485

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Record temperature: _____ <input type="checkbox"/> pH _____ <input type="checkbox"/> other: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
3. <input type="checkbox"/> Sample received in improper container.	10. <input type="checkbox"/> Other (explain below): _____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

☐ No variances were noted during sample receipt.

Cooler Temperature Upon Receipt: 2°C

Notes:

Corrective Action:

- ☐ Client's Name: \_\_\_\_\_ Informed verbally on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Client's Name: \_\_\_\_\_ Informed in writing on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Sample(s) processed "as is".
- ☐ Sample(s) on hold until: \_\_\_\_\_ If released, notify: \_\_\_\_\_

Sample Control Supervisor Review: (signature)

Date: 8-20-96

Project Management Review: (signature)

Date: 8-23-96

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE





Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J068

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96

Quanterra ID : 11872-001

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	0.00010	MG/L	U	0.00020	0.20	1

00013



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J068

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96

Quanterra ID : 11872-001MS

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	92	XREC				1

00014



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J068

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 08/30/96  
Quanterra ID : 11872-001M5D

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	91	%REC				1

00015



Environmental  
Services

Quanterra-Richland  
3350 George Washington Way  
Richland, WA 99352

Project: 550.165

Category : TCLP Mercury  
Matrix : SOLID

Client ID: 80J069

Sample Date : 08/16/96  
Receipt Date : 08/19/96  
Report Date : 09/03/96

Quanterra ID : 11872-002

Analyte	Method	Extract Date	Prep Date	Analyses Date	Result	Units	Qual.	Detection Limit	Regulatory Level	Dilution
Mercury	EPA 7470	08/28/96	08/29/96	08/29/96	0.00010	MG/L	U	0.00020	0.20	1

00019

1  
INORGANIC ANALYSES DATA SHEET

B0J068

Concentration Units (ug/L or mg/kg dry weight): UG/L

[illegible]

Comments:

TCLP

00020

1  
INORGANIC ANALYSES DATA SHEET

B0J069

Concentration Units (ug/L or mg/kg dry weight): UG/L

[illegible]

Comments:

TCLP

00021